



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,198	03/10/2004	John Burwell	2549-114-27	2440
7590 09/08/2005			EXAMINER	
PIPER RUDNICK LLP Supervisor, Patent Prosecution Services 1200 Nineteenth Street, N.W. Washington, DC 20036-2412			MAYO, TARA L	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*KE*

## Office Action Summary

Application No.

10/796,198

Applicant(s)

BURWELL ET AL.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-24 and 26-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-24 and 26-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20050303</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 20 June 2005. These drawings are acceptable.

### ***Specification***

2. The prior objection to the Abstract has been overcome by the amended Abstract filed 20 June 2005.

### ***Claim Rejections - 35 USC § 112***

3. The prior rejection of claims 2 and 3 under 35 USC §112, second paragraph has been overcome by the response filed 20 June 2005.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under

Art Unit: 3671

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1 through 5, 7 through 24 and 26 through 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manger et al. (U.S. Patent No. 6,729,797 B2) in view of Berg et al. (U.S. Patent No. 5,544,974A) and McGill et al. (U.S. Patent No. 6,886,388 B1).

Manger et al. '797, as seen in Figures 1, 2C, 3 and 4, show an underground storage system comprising:

with regard to claims 1 and 39,

a double walled riser sump (10) having spaced apart, vertical inner and outer walls (16C, 20C) defining an annular space (22C) through which fluid may flow (col. 5, lines 14 through 18); and

a monitoring fluid reservoir (32; col. 8, line 64 through col. 9, line 4) in fluid communication with the annular space;

with regard to claim 2,

wherein the reservoir is positioned near the top of the sump, whereby the reservoir is accessible from a space adjacent said top;

with regard to claim 3,

Art Unit: 3671

wherein the reservoir is connected to the annular space by two tubes (as seen in Figure 4, connected to ports 24 and 141), and the reservoir has a vent hole formed near an end of the reservoir;

with regard to claims 4 and 23,

further comprising a thin film (30) disposed within the annular space, such that liquid can flow through out the annular space (col. 5, lines 5 through 30);

with regard to claims 5 and 24,

further comprising a distance fabric (30) disposed within the annular space, the distance fabric allowing liquids to flow within the annular space (col. 5, lines 5 through 30);

with regard to claims 12 and 32,

wherein the annular space is negatively pressurized (col. 8, lines 66-7);

with regard to claims 13 and 33,

wherein the annular space is positively pressurized (col. 8, lines 66-7);

with regard to claim 17,

wherein the sump has a round cross sectional shape;

with regard to claim 21,

wherein the top is double-walled; and

with regard to claim 30,

wherein the reservoir is connected to the annular space by two tubes, and the reservoir has a vent hole (40) formed near a top of the reservoir.

Art Unit: 3671

Manger et al. '797 disclose all of the features of the claimed invention with the exception(s) of:

- an underground storage tank;
- the vertical wall of the sump being formed from a riser and a collar in fluid communication with each other;
- an alignment sleeve;
- the monitoring fluid reservoir being filled with brine;
- a liquid sensor disposed within the annular space;
- the underground tank being a double-walled storage tank;
- the sump being formed from fiber reinforced plastic;
- the tank being formed from fiber reinforced plastic;
- the tank having a cross-sectional shape in the form of a polygon; and
- the top of the sump being double-walled with an annular space in fluid communication with the annular space in the vertical wall.

Berg et al. '974, as seen in Figure 3, shows a double walled (102, 104) underground storage tank comprising a sump.

McGill et al. '388, as seen in Figure 8, show an underground storage tank comprising a sump (22) having a vertical wall and terminating in a top, wherein the vertical wall is formed from a riser and a collar, the collar being attached to the top of the sump and the riser being attached to the collar, the riser being formed from an inner riser wall (14) and an outer riser wall (20) that together define a riser annular space (72), the collar (124) being formed from an inner collar wall (the lower member of element 124)

Art Unit: 3671

and an outer collar wall (the upper member of element 124) that together define a collar annular space, the riser annular space and the collar annular space being in fluid communication together (via 110P), and further comprising an alignment sleeve (112), the alignment sleeve having a first portion in a closely spaced adjacent relationship to the riser and a second portion in a closely spaced adjacent relationship to the collar, wherein the alignment sleeve is adjacent to the inner collar wall and the inner riser wall and adjacent to the outer collar wall and the outer riser wall, and wherein the top is a double walled top defining a top annular space (76), and the top is attached to the vertical wall such that the top annular space is in fluid communication with the annular space in the vertical wall.

With regard to claims 1, 14 and 22, it would have been obvious to one having ordinary skill in the art of fluid storage at the time the invention was made to modify the device shown by Manger et al. '797 such that it would include a double walled underground storage tank as taught by Berg et al. '974. The motivation would have been for the safe underground storage of fuel.

With regard to claims 1 and 22, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device shown by Manger et al. '797 such that the vertical wall would be formed from a riser and a collar, both double walled and having annular spaces between the walls McGill et al. '388. The motivation would have been to provide the sump with means for detecting and testing leaks.

Art Unit: 3671

With regard to claims 7 through 9, 26 and 28, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device shown by Manger et al. '797 and Berg et al. '974 such that it would include an alignment sleeve as taught by McGill et al. '388. The motivation would have been to facilitate positioning of the sump.

With regard to claims 10 and 29, it would have been obvious to one having ordinary skill in the art of testing at the time the invention was made to modify the device shown by the combination of Manger et al. '797, Berg et al. '974 and McGill et al. '388 such that the reservoir would be filled with brine since the Examiner takes Official Notice for its use as a testing fluid.

With regard to claims 11 and 31, the Examiner takes Official Notice of the use of sensors for leak detection in annular spaces.

With regard to claims 15 and 16, the Examiner takes Official Notice of the known use of fiber reinforced plastic for forming sumps and underground storage tanks due to its non-corrosive properties.

With regard to claims 18 through 20 and 35 through 37, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the sump shown by the combination of Manger et al. '797, Berg et al. '974 and McGill et al. '388 with a polygonal cross section having a desired number of sides since it has been held that a mere change in configuration of a claimed device is a matter of choice absent persuasive evidence that the particular configuration of the claimed device is significant.

*In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).



Art Unit: 3671

With regard to claims 22 through 24 and 26 through 38, the method steps recited therein are inherent to the assembly of the device shown by the combination of Manger et al. '797, Berg et al. '974 and McGill et al. '388.

With specific regard to claim 38, it would have been obvious to one having ordinary skill in the art at the time of invention to make the top of the sump shown by the combination of Manger et al. '797, Berg et al. '974 and McGill et al. '388 double walled with an annular space in communication with the annular space in the vertical wall as further taught by McGill et al. '388. The motivation would have been for ease of detection of leaks in the sump.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlm  
03 September 2005



TARA L. MAYO  
PATENT EXAMINER